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10/550,556	09/23/2005	Harald Groger	7601/84378	1889

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EXAMINER	
KOSAR, AARON J	

ART UNIT	PAPER NUMBER
1651	

MAIL DATE	DELIVERY MODE
10/05/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/550,556	GROGER ET AL.	
	Examiner	Art Unit	
	Aaron J. Kosar	1651	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 September 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *15-24 and 26-34* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *15-24 and 26-34* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *9/23/2005*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Applicant's election of Group II, claims 15-24 and 26-34, without traverse, in the reply filed on September 23, 2007 is acknowledged.

Claim 25 and 35-36 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected inventions, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on September 23, 2007.

The restriction/election requirement is still deemed proper and therefore made **FINAL**.

Claims 15-24 and 26-34 are pending and examined on the merits.

Priority

Applicant's claim for the benefit of a prior-filed application under 35 U.S.C. 119(e) or under 35 U.S.C. 120, 121, or 365(c) is acknowledged. Applicant has not complied with one or more conditions for receiving the benefit of an earlier filing date under 35 U.S.C. 365(c) as follows:

The later-filed application must be an application for a patent for an invention which is also disclosed in the prior application (the parent or original non-provisional application or provisional application). The disclosure of the invention in the parent application and in the later-filed application must be sufficient to comply with the requirements of the first paragraph of 35 U.S.C. 112. See *Transco Products, Inc. v. Performance Contracting, Inc.*, 38 F.3d 551, 32 USPQ2d 1077 (Fed. Cir. 1994).

The disclosure of the prior-filed application (PCT/EP04/02726) fails to provide adequate support or enablement in the manner provided by the first paragraph of 35 U.S.C. 112 for one or more claims of this application. The PCT document is drawn to a system comprising an aqueous solvent system to which "no surfactant has been added". The national stage entry is considered to

that the new limitation requires that not only is no surfactant added to the aqueous solvent, but also requires that no surfactant is present. Thus, the priority of the affected claims (claims 15-24 and 26-34) is recognized to September 23, 2005, the time at which said claims were introduced.

Specification

The disclosure is objected to because of the following informalities:

The term "FDH" appears to be an abbreviation of the enzyme "formate dehydrogenase". Since abbreviations may have multiple meanings, each of which may have distinct and potentially unrelated meanings, to avoid confusion as to the intended meaning of the abbreviation, the first instance of the abbreviation in the specification and/or claim should define the term or otherwise clearly associate the expanded and abbreviated terms (e.g. "formate dehydrogenase (FDH)").

Appropriate correction is required.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

The claimed invention is directed to non-statutory subject matter. The claimed invention presently does not require any active method steps. Additionally, the claimed invention does not require any manipulation, isolation, conditions, etc. to distinguish the system from reactions which are naturally-occurring.

Also, the elected invention is drawn to a *system*; however, systems *per se* are not a recognized class of invention (*e.g.* method/process (of making or using), composition of matter, or apparatus). Please note, that although claim 15 is drawn to a system, since the original

presentation of dependent claim 26 recites the "*process* of claim 15", for the sake of compact prosecution, the claims have been interpreted as being drawn to a process (method). Treatment of the claims as method claims for the purpose of examination purposes does not absolve Applicant from to requirement to appropriately amend and/or cancel the affected claims.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 15-24 and 26-34 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 15 recites the limitation "the initial concentration of substrate" in step (b)(ii). There is insufficient antecedent basis for this limitation in the claim, because the term "the..substrate" and the term "organic compound" (step (a)) both appear to be involved in a transformation; however, there is no correlation of the two terms and thus the term "the..substrate" lacks antecedence.

The term "higher than or equal to its solubility limit" in claims 15, 17, and 27 is a relative term which renders the claim indefinite. The term "solubility limit" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. Furthermore, the claims do not limit the solubility limit to any particular solvent, temperature, etc. and thus it is also unclear whether the concentration of the substrate and the solubility limit refer to the same sample (or substrate-solvent pairing) or if the solubility is a reference solubility measurement but not required by the solution/suspension in which transforming of the organic

compound is performed (e.g. measuring the water solubility and then using this value for reactions in DMSO (or other solvent)). Furthermore, the term "concentration", expressed as molarity (M), is understood in the art to refer to moles of a substance per volume solution. Accordingly sample which is in the solid phase and not dissolved does not contribute to the concentration, thus it is unclear how a concentration can exceed the solubility limit, rendering the claims indefinite.

Claim 26 recites the limitation "the reaction mixture" and "the desired product" in claim 15. There is insufficient antecedent basis for the limitations in the claim, because the terms "reaction mixture" and "the desired product" are not recited in claim 15 nor is it clear what components or composition comprise the reaction mixture or the desired product.

Claims 15-24 and 26-34 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01.

While all of the technical details of a method need not be recited, the claims should include enough information to clearly and accurately describe the invention and how it is to be practiced. The minimum requirements for method steps minimally include a *contacting step* in which the reaction of the sample with the reagents necessary for the assay is recited, a *detecting step* in which the reaction steps are quantified or visualized, and a *correlating step* describing how the results of the reaction arrive at the conclusion. In these claims, the active steps and the sequence/progression/interdependency of the active steps are missing.

Also, the claims are incomplete in the absence of a recovery step for the product produced. While there is no specific rule or statutory requirement which specifically addresses

the need for a recovery step in a process of preparing a composition, it is clear from the record and would be expected from conventional preparation processes that the product must be isolated or recovered. Thus the claims fail to particularly point out and distinctly claim the "complete" process since the recovery step is missing from the claims.

The metes and bounds of the claimed process are therefore not clearly established or delineated. Thus one of skill would not be able to determine what subject matter is embraced by the claims, rendering the claims indefinite.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 15-24 and 26-34 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

MPEP § 2163 states that, "[n]ew or amended claims which introduce elements or limitations which are not supported by the as-filed disclosure violate the written description requirement. See, e.g., *In re Lukach*, 442 F.2d 967, 169 USPQ 795 (CCPA 1971) (subgenus range was not supported by generic disclosure and specific example within the subgenus range); *In re Smith*, 458 F.2d 1389,1395, 173 USPQ 679, 683 (CCPA 1972) (a subgenus is not necessarily described by a genus encompassing it and a species upon which it reads)." Further, the MPEP states, "[w]hile there is no *in haec verba* requirement, newly added claim limitations must be supported in the specification through express, implicit, or inherent disclosure."

The MPEP states that the purpose of the written description requirement is to ensure that the inventor had possession, as of the filing date of the application, of the specific subject matter later claimed by him. The courts have stated:

> "To fulfill the written description requirement, a patent specification must describe an invention and do so in sufficient detail that one skilled in the art can clearly conclude that "the inventor invented the claimed invention." *Lockwood v. American Airlines, Inc.*, 107 F.3d 1565, 1572, 41 USPQ2d 1961, 1966 (Fed. Cir. 1997); *In re Gostelli*, 872 F.2d 1008, 1012, 10 USPQ2d 1614, 1618 (Fed. Cir. 1989) ("[T]he description must clearly allow persons of ordinary skill in the art to recognize that [the inventor] invented what is claimed."). Thus, an applicant complies with the written description requirement "by describing the invention, with all its claimed limitations, not that which makes it obvious," and by using "such descriptive means as words, structures, figures, diagrams, formulas, etc., that set forth the claimed invention." *Lockwood*, 107 F.3d at 1572, 41 USPQ2d at 1966." *Regents of the University of California v. Eli Lilly & Co.*, 43 USPQ2d 1398.

The MPEP lists factors that can be used to determine if sufficient evidence of possession has been furnished in the disclosure of the Application. These include "level of skill and knowledge in the art, partial structure, physical and/or chemical properties, functional characteristics alone or coupled with a known or disclosed correlation between structure and function, and the method of making the claimed invention. Disclosure of any combination of such identifying characteristics that distinguish the claimed invention from other materials and would lead one of skill in the art to the conclusion that the applicant was in possession of the claimed species is sufficient." MPEP § 2163.

Further, for a broad generic claim, the specification must provide adequate written description to identify the genus of the claim. In *Regents of the University of California v. Eli Lilly & Co.* the court stated:

"A written description of an invention involving a chemical genus, like a description of a chemical species, 'requires a precise definition, such as by structure, formula, [or] chemical

name,' of the claimed subject matter sufficient to distinguish it from other materials." *Fiers*, 984 F.2d at 1171, 25 USPQ2d 1601; *In re Smythe*, 480 F.2d 1376, 1383, 178 USPQ 279, 284985 (CCPA 1973) ("In other cases, particularly but not necessarily, chemical cases, where there is unpredictability in performance of certain species or subcombinations other than those specifically enumerated, one skilled in the art may be found not to have been placed in possession of a genus ...") *Regents of the University of California v. Eli Lilly & Co.*, 43 USPQ2d 1398.

The MPEP does state that for a generic claim the genus can be adequately described if the disclosure presents a sufficient number of representative species that encompass the genus. MPEP § 2163. If the genus has a substantial variance, the disclosure must describe a sufficient variety of species to reflect the variation within that genus. See MPEP § 2163. Although the MPEP does not define what constitute a sufficient number of representative species, the courts have indicated what do not constitute a representative number of species to adequately describe a broad generic. In *Gostelli*, the courts determined that the disclosure of two chemical compounds within a subgenus did not describe that subgenus. *In re Gostelli*, 872, F.2d at 1012, 10 USPQ2d at 1618.

The factors considered in the Written Description requirement are (1) *level of skill and knowledge in the art*, (2) *partial structure*, (3) *physical and/or chemical properties*, (4) *functional characteristics alone or coupled with a known or disclosed correlation between structure and function*, and the (5) *method of making the claimed invention*.

In the instant case, the claims are drawn to a system.

(1) Level of skill and knowledge in the art:

The level of skill in the art is high such that one of skill would recognize enzyme substrate interactions and the role of cofactors. However, the myriad of enzymes, cofactors,

substrates, and products and the myriad of conditions that modulate or influence the genus of reactions embraced by the instant claims is beyond the knowledge of one of skill in the art.

(2) Partial structure, (3) Physical and/or chemical properties, and (4) Functional characteristics:

The system is disclosed as having various components; however, the active steps and the products obtained are not limited or defined by the claimed invention. The claims also include an exponentially lager breadth of components, reactions, and products than is supported by the specification or the examples disclosed.

(5) Method of making the claimed invention:

The active manipulations of the composition(s) and the result/purpose of the method are not claimed, and as such does not establish a nexus between the claims and the specification or the preferred embodiments therein.

As stated *supra*, the MPEP states that written description for a genus can be achieved by a representative number of species within a broad generic. It is unquestionable that claim 15 is a broad generic, with respect to all possible compounds encompassed by the claims. The possible structural variations are limitless to any class of compound, transformation, cofactor, product m and method.

It must not be forgotten that the MPEP states that if a biomolecule is described only by a functional characteristic, without any disclosed correlation between function and structure, it is "not sufficient characteristic for written description purposes, even when accompanied by a method of obtaining the claimed sequence." MPEP § 2163. Here, though the claims may recite some functional characteristics, the claims lack written description because there is no disclosure of a correlation between function and structure of the compounds beyond compounds disclosed

in the examples in the specification. Moreover, the specification lack sufficient variety of species to reflect this variance in the genus since the specification does not provide any examples of derivatives. While having written description of cinnemaldehyde and (di)chloroacetophenone derivatives with FDH in the exemplified solvents and also of compounds identified in the specification tables and/or examples, including NAD(P)H, the specification lacks sufficient variety of species to be representative of all methods in all instances, involving the breadth of the claimed compounds, transformations, products, etc.

The description requirement of the patent statue requires a description of an invention, not an indication of a result that one might achieve if one made that invention. See *In re Wilder*, 736, F.2d 1516, 1521, 222 USPQ 369, 372-73 (Fed. Cir. 1984) (affirming rejection because the specification does "little more than outlin[e] goals appellants hope the claimed invention achieves and the problems the invention will hopefully ameliorate.") Accordingly, it is deemed that the specification fails to provide adequate written description for the genus of the claims and does not reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the entire scope of the claimed invention.

Claims 15-24 and 26-34 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claim 15-24 and 35-36 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for a method of reacting a subset of aldehydes and ketones (see examples) in the manner of the embodiments, does not reasonably provide enablement for

all enzymatic reactions in all instances as embraced by the claims. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to practice the invention commensurate in scope with these claims.

The factors to be considered in determining whether a disclosure meets the enablement requirements of 35 U.S.C. 112, first paragraph, have been described in *In re Wands*, 858 F.2d 731, 8 USPQ2d 1400 (Fed. Cir., 1988). The court in Wands states, "Enablement is not precluded by the necessity for some experimentation, such as routine screening. However, experimentation needed to practice the invention must not be undue experimentation. The key word is 'undue', not 'experimentation'" (Wands, 8 USPQ2sd 1404). Clearly, enablement of a claimed invention cannot be predicated on the basis of quantity of experimentation required to make or use the invention. "Whether undue experimentation is needed is not a single, simple factual determination, but rather is a conclusion reached by weighing many factual considerations" (Wands, 8 USPQ2d 1404). Among these factors are: (1) the nature of the invention; (2) the breadth of the claims; (3) the state of the prior art; (4) the predictability or unpredictability of the art; (5) the relative skill of those in the art; (6) the amount of direction or guidance presented; (7) the presence or absence of working examples; and (8) the quantity of experimentation necessary.

While all of these factors are considered, a sufficient amount for a *prima facie* case is discussed below.

(1) The nature of the invention and (2) the breadth of the claims:

The claims are drawn to a reaction system. Thus, the claims taken together with the specification imply a breadth of claims greater than that which is supported by the claims.

(3) The state of the prior art, (4) the predictability or unpredictability of the art, (5) The relative skill of those in the art:

The state of the prior art is such that one of skill would not be apprised as to the full scope of enzymatic reactions/transformations, substrates/compounds/cofactors, or reactions commensurate with the claims.

Although the relative skill of those in the art is high, since the *a priori* determination of all possible reactions arising from an indeterminate method (a method which has insufficient or

no active steps) is beyond the ordinary skill of one in the art and/or largely unsolved, means for determining the products/result of practicing the invention is highly unpredictable.

(6) The amount of direction or guidance presented and (7) the presence or absence of working examples:

The specification has provided examples of a subset of reactants and procedures for reacting those compositions. However, the specification does not provide direction or a sufficient number of working examples sufficient to describe the species.

(8) The quantity of experimentation necessary:

Considering the state of the art and the high unpredictability and the lack of guidance provided in the specification, one of ordinary skill in the art would be burdened with undue experimentation to make and use the invention as claimed.

It is the Examiner's position that one skilled in the art could not practice the invention commensurate in the scope of the claims without undue experimentation.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later

invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 15-24 and 26-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over BOMANNUS (US 2003/0054520 A1) or YAMAMOTO (US 2002/0064847 A1) or Sjoberg (US 6,500,661)

The claims are drawn to a reaction system. To the extent that the claims teach a method of reacting an organic compound with an enzyme and regenerating a co-factor, the claims stand anticipated by the prior art.

Bomannus teaches a method of enantioselectively transforming an organic compound, including organic compounds, including alcohols and carbonyl-containing compounds, including ketones; enzymes, including alcohol dehydrogenase; and co-factors, including NADH or NADPH (claims; ¶ [0043],[0044],[0094]). The reaction system of Bomannus appears to be obvious, if not identical, to the system of the instant claims, especially in the absence absent evidence to the contrary and evidence to the criticality of the claimed parameters of the instant invention.

Yamamoto teaches a method of transforming an organic compound, including organic compounds; enzymes, including alcohol dehydrogenase; and co-factors, including NADH (claims; ¶ [0046]). The reaction system of Yamamoto appears to be obvious, if not identical, to the system of the instant claims, especially in the absence absent evidence to the contrary and evidence to the criticality of the claimed parameters of the instant invention.

Sjoberg teaches an enzymatic reaction system comprising transformation of glucose to gluconate via an enzyme coupled to enzymatic NAD(P)/NAD(P)H recycling enzyme system (e.g. figure 16).

To the extent that Bomannus/Yamamoto/Sjoberg are silent with respect to the teachings of the specific ranges/concentrations/temperatures of the instantly claimed invention, absent evidence to the contrary, it would have been prima facie obvious to one skilled in the art at the time of invention to determine all optimum and operable conditions (e.g. proportions/concentrations or reagents, temperature, reaction times, etc.), because such conditions are art-recognized result-effective variables that are routinely determined and optimized in the art through routine experimentation. ("[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955). *See* MPEP § 2145.05).

From the teachings of the references, it is apparent that one of ordinary skill in the art would have had a reasonable expectation of success in producing the claimed invention. Therefore, the invention as a whole was *prima facie* obvious to one of ordinary skill in the art at the time the invention was made, as evidenced by the references, especially in the absence of evidence to the contrary.

Please note, since the Office does not have the facilities for examining and comparing Applicants' composition/methods with the composition/methods of the prior art, the burden is on applicant to show a novel or unobvious difference between the claimed product and the product of the prior art. *See In re Best*, 562 F.2d 1252, 195 USPQ 430 (CCPA 1977) and *In re*

Fitzgerald, 619 F.2d 67, 205 USPQ 594 (CCPA 1980), and "as a practical matter, the Patent Office is not equipped to manufacture products by the myriad of processes put before it and then obtain prior art products and make physical comparisons therewith." *In re Brown*, 459 F.2d 531, 535, 173 USPQ 685, 688 (CCPA 1972).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aaron J. Kosar whose telephone number is (571) 270-3054. The examiner can normally be reached on Monday-Thursday, 7:30AM-5:00PM, ALT. Friday,EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mike Wityshyn can be reached on (571) 272-0926. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Aaron Kosar
Examiner, Art Unit 1651

SANDRA E. SAUCIER
PRIMARY EXAMINER